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(54) WRAPAROUND PACKAGE WITH PERIPHERAL STRAP

HÜLLVERPACKUNG MIT UMLAUFENDEM BAND

EMBALLAGE ENVELOPPANT AVEC BANDE D'ATTACHE PERIPHERIQUE

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(74) Representative:
**Hepworth, John Malcolm et al
Hepworth Lawrence Bryer & Bizley
Bloxam Court
Corporation Street
Rugby, Warwickshire CV21 2DU (GB)**

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(73) Proprietor: **THE MEAD CORPORATION
Dayton Ohio 45463 (US)**

(56) References cited:
**EP-A- 0 235 062 US-A- 2 313 731
US-A- 2 359 297 US-A- 3 451 543
US-A- 4 301 922 US-A- 4 398 631
US-A- 4 796 754 US-A- 4 880 115**

(72) Inventor: **DANIEL, Jean-Yves
F-36000 Chateauroux (FR)**

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Description

[0001] The present invention relates to a package of the wraparound kind accommodating a plurality of articles, such as bottles, in which retention means for preventing dislodgement of the end-most bottles is required in addition to retention means provided by the carton itself.

[0002] Hence, a carton of the present invention comprises the combination of a wraparound carton and a strap, preferably a peripheral plastics strap secured around the midriff of the carton for maintaining the bottles in a closely clustered unit. One feature of a carton according to the invention is that it is shorter than the overall unit of bottles so that the end-most bottles are at least partially exposed to view. Due to its relatively short length the overall cost of this type of package is considerably lower than a full length carton which does not require a securing strap. In order to prevent vertical displacement of the securing strap, which, with a considerable variety of bottle shapes causes the strap to be slackened, the carton includes integral restraining means for cooperation with the strap to prevent the strap from being displaced out of position towards the tops or bottoms of the packaged articles.

[0003] GB1,580,966 discloses a wraparound bottle carrier which has a strap portion and a pair of inwardly folded flaps joined to the opposite end edges of each side wall of the carton. The inwardly folded flaps do not however cooperate with the strap in order to restrain movement thereof but are provided as integral parts of the retention structure of the paperboard wrapper provided to resist endways dislodgement of the heel portion of the endmost bottles in the package.

[0004] EP-454,450 discloses an article carrier of the top gripping type in which side panels thereof are held secured to the adjacent faces of the bottles by means of a circumferential strap. The strap is prevented from being displaced in a direction along the axis of the bottles by notches formed in the edges of the side panels.

[0005] GB709309 discloses an article carrier of the wraparound type with a strap to retain from dislodgement a group of articles and free ends of the carton extend downwardly between the jars to stretch the band around the jars to retain the jars in position.

[0006] None of these references suggests either alone or in combination, that an inwardly folded end flap of a carton may be engaged with a midriff carton strap to prevent displacement of the strap. Moreover none of the references suggest that a folded flap may engage a portion of a midriff strap extending between adjacent articles of the carton.

[0007] One aspect of the invention provides a wrap-around carton accommodating a plurality of articles, for example bottles, in which the endmost articles in the carton are retained from dislodgement by a strap encircling said plurality of articles which strap is positioned

intermediate the carton and said plurality of articles characterised in that the carton includes integral restraining means disposed internally of the carton which cooperate with said strap to limit any substantial displacement of the strap towards the top or base of the carton. Preferably, the endmost articles may be at least partially exposed and wherein the strap engages the endmost articles externally of the carton.

[0008] According to an optional feature of this aspect of the invention the restraining means may comprise one or more flaps hingedly connected to a side wall, which one or more restraining flap is folded inwardly into the space between adjacent articles.

[0009] In one class of embodiments, the one or more restraining flaps may be located for cooperation with an upper edge of the strap intermediate the ends of the carton to limit upward displacement of the strap. Preferably, there may further comprise second rest flaps hingedly connected to the side wall panel and spaced from the first restraining flap, which second restraining flap is folded inwardly into the space between adjacent articles to cooperate with the lower edge of the strap to limit downward displacement of the strap.

[0010] Alternatively, the one or more restraining flaps may be located for cooperation with a lower edge of the strap intermediate the ends of the carton to limit downward displacement of the strap.

[0011] According to another optional feature of this aspect of the invention there may further comprise a plurality of restraining flaps hinged to the opposed end edges of the side wall panels for cooperation with an upper edge and/or lower edge of the strap.

[0012] A second aspect of the invention provides a blank for forming a wraparound carton comprising a base panel, a first side panel, a top panel, a second side panel foldably connected together in series characterised in that the blank includes integral restraining means hingedly connected to the opposed end edges of one or more of the side wall panels to be folded inwardly, the integral restraining means cooperates with a strap for encircling articles in a set up condition to limit any substantial displacement of the strap towards the top or base of the carton in a set-up condition.

[0013] Preferably, the restraining means may comprise a restraining flap hingedly connected to the adjacent side wall, which restraining flap can be folded inwardly to be placed intermediate the adjacent side wall and a plurality of articles accommodated in the set up condition. More preferably, the restraining flap may be located for cooperation with an upper edge of the strap encircling the plurality of articles in the carton to limit upward displacement of the strap.

[0014] A third aspect of the invention provides a package comprising a plurality of articles being arranged in a group of at least one row, a strap extending around a circumference of the group to hold the articles together in a unit, the strap including a pair of opposed parallel straight runs each extending from one

endmost article in the row to an opposite endmost article in the row and a carton of a tubular structure including a top wall panel, a pair of side wall panels and a pair of secured base panels, the carton extending around the group such that the side wall panels are disposed over the straight runs and along opposite sides of the group, at least one of the side wall panels including restraining means for limiting vertical displacement of the strap.

[0015] According to an optional feature of the third aspect of the invention the restraining means may comprise a flap hinged to a side edge of the at least one side wall panel, and the flap being folded inwardly of the tubular structure into a space between adjacent articles in the row to be disposed at a location vertically adjoining an adjacent one of the straight runs. More preferably, the side edge of the at least one side wall panel extends transversely of the adjacent straight run.

[0016] According to another optional feature of the third aspect of the invention the flap may be disposed immediately above the adjacent straight run.

[0017] According to a further optional feature of the third aspect of the invention, the restraining means may comprise a pair of upper and lower flaps hinged to the side edge of at least one side wall panel, the upper and lower flaps being folded inwardly of the tubular structure to be disposed immediately above and below the adjacent straight run, respectively.

[0018] Embodiments of the invention will now be described, by way of example, with reference to the accompanying drawings, in which:-

Figure 1 is a plan view of a blank for accommodating a group of eight bottles in which upper strap retention flaps are provided;

Figures 2a and 2b are schematic end views of the end most bottles in canons according to the invention;

Figure 3 is a schematic side view of a carton and strap combination for a carton accommodating six bottles;

Figure 3a is a schematic side view of the carton shown in Figure 3; and

Figure 4 is a plan view of another blank having both upper and lower strap retaining flaps.

[0019] Referring first to Figure 1 of the drawings there is shown a carton blank 10 formed from paper-board or similar foldable sheet material and which comprises a first base panel 12 a first heel retention panel 14, a first main side wall panel 16, a first upper side wall panel 18, a top wall panel 20, a second upper side wall panel 22, a second main side wall panel 24, a second heel retention panel 26 and a second base panel 28

hinged one to the next along transverse fold lines 30-44 respectively.

[0020] The carton blank is adapted to wrap a group of eight bottles formed in two rows of four bottles each and to this end the carton is of the so called "neck through" wraparound variety and includes bottle neck receiving apertures A struck from the top panel 20 and scalloped regions "S" at opposite end edges of the top panel 20 to receive circumferential portions of the end most bottles of the group.

[0021] The bottle neck receiving apertures provide retention for the upper ends of the bottles but, of course, the scalloped areas "S" do not achieve any retention capability and further retention means are provided as described below.

[0022] In order to provide for the retention of the heels of the bottles, heel retention flaps h1, h2 are struck partially from base panel 12, heel panel 14 and main side panel 16 and likewise heel retention flaps h3, h4 are struck partially from the base panel 28, the heel panel 26 and main side panel 24. Further scalloped areas "Sh" are provided for heel portions of the endmost bottles. The blank is wrapped around the group of bottles to be accommodated and the base panels 12 and 28 are secured together in overlapping relationship by means of cooperating locking tabs T1, T2, T3 which cooperate with complementary locking apertures defined by retention tabs R1, R2 and R3 respectively.

[0023] In order to provide for retention of the endmost bottles in the group, the group of bottles is wrapped, substantially about its midriff, with a plastics strap. Thereafter the carton blank is applied to the strapped group. Preferably the plastics strap is toned from a heat shrinkable material and therefore is applied to the bottle group in relatively loose condition and thereafter tightened by shrinking through the application heat. Nevertheless, there is a tendency for the strap to shift vertically towards the top and/or bottoms of the bottles depending upon the shape of the bottles. For instance, Figure 2a illustrates schematically an arrangement in which the strap "P" is applied to a group of bottles containing bottles of one form where shifting of the strap in either of the vertically upwards or downwards direction is a possibility. Figure 3 shows a side view of the arrangement. Figure 2b is a similar view to Figure 2a but showing the strap applied to a form of bottle in which displacement of the strap vertically upwards, but not downwards, is likely. In particular, Figure 2b shows the effect once the strap has shifted vertically upwards whereby the strap slackens and the bottles are free to tilt and therefore may become dislodged from the carton.

[0024] In order to prevent vertical dislodgement of the strap, the carton blank 10 is formed with a set of restraining flaps F1, F2, F3 & F4. Retaining flaps F1 and F2 are integral with and hinged to upper side wall panel 18 and main side wall panel 16 and, similarly, retaining flaps F3 and F4 are integral with and hinged to upper

side wall panel 22 and main side wall panel 24.

[0025] Referring now to Figure 3 and 3a of the drawings, it will be seen that once the blank has been wrapped about a group of bottles B (in this case the illustration shows a group of six bottles with three bottles in each row) the retaining flaps F_1, F_2 (F_3, F_4) are hinged inwardly so that they extend into the space between an adjacent pair of bottles and are disposed above the strap wrapped about the midriff of the bottle group within so that the lower edges of the restraining flaps are disposed immediately above a straight run of the strap which extends from one end-most bottle in the group to an opposite endmost bottle in the group and hence spans the space between those bottles.

[0026] Figure 4 of the drawings shows a blank similar to that shown in Figure 1 but in which two pairs of strap retention flaps are provided in association with each side wall of the carton. Accordingly in Figure 4, like reference numerals to those of Figure 1 designate like parts with the addition of suffix "a". The modified arrangement shown in Figure 4 is for use with bottles of the form shown in Figure 2a where the strap has a tendency to shift in either of the vertically upward or downward direction and therefore restraining flaps are required to restrict movement of the strap in either of the upward or downward direction. Hence restraining flaps $F1_a - F4_a$ are disposed inwardly of the carton immediately above the top edge of the strap to prevent upwards movement of the strap whereas restraining flaps $F5_a - F8_a$ are folded inwardly of the carton and are disposed immediately below the lower edge of the strap to prevent downward movement of the strap.

Claims

1. A wraparound carton (C) accommodating a plurality of articles, for example bottles (B), in which the endmost articles (B1, B3) in the carton are retained from dislodgement by a strap (P) encircling said plurality of articles which strap is positioned intermediate the carton and said plurality of articles characterised in that the carton includes integral restraining means disposed internally of the carton which cooperate with said strap to limit any substantial displacement of the strap towards the top (20) or base (12, 28) of the carton.
2. A wraparound carton according to claim 1 wherein the endmost articles (B1, B3) are at least partially exposed and wherein said strap (P) engages the endmost articles externally of the carton.
3. A wraparound carton as claimed in claim 1 or claim 2 wherein the restraining means comprises one or more flaps (F) hingedly connected to a side wall, which one or more restraining flap is folded inwardly into the space between adjacent articles.
4. A wraparound carton as claimed in claim 3 wherein the one or more restraining flaps ($F1, F2, F3, F4, F3a, F4a, F5a, F6$) is located for cooperation with an upper edge of said strap intermediate the ends of the carton to limit upward displacement of the strap.
5. A wraparound carton as claimed in claim 4 wherein there further comprises a second restraining flaps ($F1a, F2a, F7a, F8a$) hingedly connected to the side wall panel and spaced from the first restraining flap, which second restraining flap is folded inwardly into the space between adjacent articles to cooperate with the lower edge of the strap to limit downward displacement of the strap.
6. A wraparound carton as claimed in claim 3 wherein the one or more restraining flaps ($F1a, F2a, F7a, F8a$) is located for cooperation with a lower edge of said strap intermediate the ends of the carton to limit downward displacement of the strap.
7. A wraparound carton as claimed in any of claims 1 to 3 wherein there further comprises a plurality of restraining flap hinged to the opposed end edges of the side wall panels for cooperation with an upper edge and/or lower edge of the strap.
8. A blank for forming a wraparound carton comprising a base panel (12, 28), a first side panel (16), a top panel (20), a second side panel (24) foldably connected together in series characterised in that the blank includes integral restraining means hingedly connected to the opposed end edges of one or more of the side wall panels to be folded inwardly, the integral restraining means cooperates with a strap (P) for encircling articles in a set up condition to limit any substantial displacement of the strap towards the top or base of the carton in a set-up condition.
9. The blank as claimed in claim 8 wherein the restraining means comprises a restraining flap (F) hingedly connected to the adjacent side wall, which restraining flap can be folded inwardly to be placed intermediate the adjacent side wall and a plurality of articles accommodated in the set up condition.
10. The blank as claimed in claim 9 wherein the restraining flap is located for cooperation with an upper edge of the strap (P) encircling the plurality of articles in the carton to limit upward displacement of the strap.
11. A package comprising:
 - a plurality of articles (B) being arranged in a group of at least one row;

- a strap (P) extending around a circumference of said group to hold said articles together in a unit, said strap including a pair of opposed parallel straight runs each extending from one endmost article in said row to an opposite endmost article in said row; and
- a carton (C) of a tubular structure including a top wall panel (20), a pair of side wall panels (16, 24) and a pair of secured base panel (12, 124), said carton extending around said group such that said side wall panels are disposed over said straight runs and along opposite sides of said group, at least one of said side wall panels including restraining means for limiting vertical displacement of said strap.
12. The package as claimed in claim 11 wherein said restraining means comprising a flap (F) hinged to a side edge of said at least one side wall panel, and said flap being folded inwardly of said tubular structure into a space between adjacent articles (B) in said row to be disposed at a location vertically adjoining an adjacent one of said straight runs.
13. A package as claimed in claim 12, wherein the side edge of said at least one side wall panel extends transversely of said adjacent straight run.
14. The package according to any of claims 11 to 13 wherein said flap (F) is disposed immediately above said adjacent straight run.
15. The package according to claim 11 wherein said restraining means comprises a pair of upper and lower flaps (F3a, F4a, F5a, F6a; F1a, F2a, F7a, F8a) hinged to said side edge of at least one side wall panel, said upper and lower flaps being folded inwardly of said tubular structure to be disposed immediately above and below said adjacent straight run, respectively.
- Patentansprüche**
1. Schachtel des Umwickeltyps (C) zum Aufnehmen einer Vielzahl von Gegenständen wie etwa Flaschen (B), in welcher die äußersten Gegenstände (B1, B3) in der Schachtel vom Herausnehmen durch einen Riemen (P) zurückgehalten werden, der die Vielzahl von Gegenständen umgibt, wobei der Riemen zwischen der Schachtel und der Vielzahl von Gegenständen angeordnet ist, dadurch gekennzeichnet, dass die Schachtel eine integrale Rückhalteeinrichtung einschließt, die im Inneren der Schachtel angeordnet ist und die mit dem Riemen zusammenwirkt, um jedwede wesentliche Verschiebung des Riemens hin zu dem Oberteil (20) oder dem Boden (12, 28) der Schachtel einzuschränken.
2. Schachtel des Umwickeltyps nach Anspruch 1, wobei die äußersten Gegenstände (B1, B3) wenigstens teilweise unverpackt sind und wobei der Riemen (P) die äußersten Gegenstände außerhalb der Schachtel in Eingriff nimmt.
3. Schachtel des Umwickeltyps nach Anspruch 1 oder 2, wobei die Rückhalteeinrichtung eine oder mehrere Klappen (F) umfasst, die gelenkig mit einer Seitenwand verbunden sind, wobei eine oder mehrere Rückhalteklappen nach innen in den Raum zwischen benachbarten Gegenständen gefaltet werden.
4. Schachtel des Umwickeltyps nach Anspruch 3, wobei eine oder mehrere Rückhalteklappen (F1, F2, F3, F4, F3a, F4a, F5a, F6a) zum Zusammenwirken mit einer oberen Kante des Riemens, der zwischen den Enden der Schachtel liegt, angeordnet sind, um die Verschiebung des Riemens nach oben einzuschränken.
5. Schachtel des Umwickeltyps nach Anspruch 4, wobei diese ferner eine zweite Rückhalteklappe (F1a, F2a, F7a, F8a) umfasst, die mit der Seitenwandfläche gelenkig verbunden ist und von der ersten Rückhalteklappe beabstandet ist, wobei die zweite Rückhalteklappe nach innen in den Raum zwischen benachbarten Gegenständen gefaltet ist, um mit der unteren Kante des Riemens zusammenzuwirken, um die Verschiebung des Riemens nach unten einzuschränken.
6. Schachtel des Umwickeltyps nach Anspruch 3, wobei eine oder mehrere Rückhalteklappen (F1a, F2a, F7a, F8a) angeordnet sind, um mit einer unteren Kante des Riemens zwischen den Enden der Schachtel zusammenzuwirken, um die Verschiebung des Riemens nach unten einzuschränken.
7. Schachtel des Umwickeltyps nach einem der Ansprüche 1 bis 3, wobei diese ferner eine Vielzahl von Rückhalteklappen umfasst, die mit gegenüberliegenden Endkanten der Seitenwandflächen gelenkig verbunden sind, um mit einer oberen Kante und/oder einer unteren Kante des Riemens zusammenzuwirken.
8. Zuschnitt zum Ausbilden einer Schachtel des Umwickeltyps, die eine Bodenwandfläche (12, 28) umfasst sowie eine erste Seitenwandfläche (16), eine Deckenwandfläche (20) und eine zweite Seitenwandfläche (24), die faltbar in Reihe miteinander verbunden sind, dadurch gekennzeichnet, dass der Zuschnitt eine integrale Rückhalteeinrichtung einschließt, die gelenkig mit gegenüberliegenden Endkanten einer oder mehrerer nach innen zu faltender Seitenwandflächen verbunden ist, wobei die

integrale Rückhalteeinrichtung mit einem Riemen (P) zusammenwirkt zum Umfassen von Gegenständen in einem aufgerichteten Zustand, um so jedwede wesentliche Verschiebung des Riemens hin zu dem Oberteil oder dem Boden der Schachtel in einem aufgerichteten Zustand einzuschränken.

9. Zuschnitt nach Anspruch 8, wobei die Rückhalteeinrichtung eine Rückhalteklappe (F) umfasst, die mit der benachbarten Seitenwand gelenkig verbunden ist, wobei die Rückhalteklappe nach innen gefaltet werden kann, um zwischen der benachbarten Seitenwandfläche und einer Vielzahl von Gegenständen angeordnet zu werden, die in einem aufgerichteten Zustand aufgenommen sind.

10. Zuschnitt nach Anspruch 9, wobei die Rückhalteklappe zum Zusammenwirken mit einer oberen Kante des Riemens (P), der die Vielzahl von Gegenständen in der Schachtel umgibt, angeordnet ist, um eine Verschiebung des Riemens nach oben einzuschränken.

11. Verpackung, die umfasst:

eine Vielzahl von Gegenständen (B), die in einer Gruppe von wenigstens einer Reihe angeordnet sind;

einen Riemen (P), der sich um den Umfang der Gruppe erstreckt, um die Gegenstände in einer Einheit zusammenzuhalten, wobei der Riemen ein Paar gegenüberliegender paralleler gerader Längen einschließt, die sich jeweils von einem äußersten Gegenstand der Reihe zu einem gegenüberliegenden äußersten Gegenstand der Reihe erstrecken; und

eine Schachtel (C) von röhrenförmiger Struktur, die eine Deckenwandfläche (20) einschließt sowie ein Paar von Seitenwandflächen (16, 24) und ein Paar von befestigten Bodenwandflächen (12, 124), wobei sich die Schachtel um die Gruppe erstreckt, derart, dass die Seitenwandflächen über den geraden Längen und entlang gegenüberliegender Seiten der Gruppe angeordnet sind, wobei wenigstens eine der Seitenwandflächen eine Rückhalteeinrichtung einschließt, um die vertikale Verschiebung des Riemens einzuschränken.

12. Verpackung nach Anspruch 11, wobei die Rückhalteeinrichtung eine Klappe (F) umfasst, die mit einer Seitenkante von wenigstens einer der Seitenwandflächen gelenkig verbunden ist, und wobei die Klappe in das Innere der röhrenförmigen Struktur in einen Raum gefaltet wird, der zwischen benachbarten Gegenständen (B) in der Reihe liegt, um an

einer Stelle angeordnet zu werden, die senkrecht an einer benachbarten geraden Länge anstößt.

13. Verpackung nach Anspruch 12, wobei sich die Seitenkante von wenigstens einer der Seitenwandflächen schräg zu der benachbarten geraden Länge erstreckt.

14. Verpackung nach einem der Ansprüche 11 bis 13, wobei die Klappe (F) unmittelbar oberhalb der benachbarten geraden Länge angeordnet ist.

15. Verpackung nach Anspruch 11, wobei die Rückhalteeinrichtung ein Paar oberer und unterer Klappen (F3a, F4a, F5a, F6a; F1a, F2a, F7a, F8a) umfasst, die mit der Seitenkante von wenigstens einer der Seitenwandflächen gelenkig verbunden sind, wobei die oberen und unteren Klappen in das Innere der röhrenförmigen Struktur gefaltet werden, um unmittelbar oberhalb bzw. unterhalb der benachbarten geraden Länge angeordnet zu werden.

Revendications

1. Carton enveloppant (C) recevant plusieurs articles, par exemple des bouteilles (B), dans lequel les articles d'extrémité (B1, B3) dans le carton sont retenus à l'encontre d'un déboîtement par une bande (P) encerclant la multiplicité d'articles, laquelle bande est positionnée entre le carton et ladite multiplicité d'articles, caractérisé en ce que le carton comprend des moyens de retenue d'un seul tenant disposés à l'intérieur du carton qui coopèrent avec ladite bande de façon à limiter tout déplacement substantiel de la bande vers le sommet (20) ou la base (12, 18) du carton.

2. Carton enveloppant selon la revendication 1, dans lequel les articles d'extrémité (B1, B3) sont au moins partiellement exposés et ladite bande (P) engage les articles d'extrémité à l'extérieur du carton.

3. Carton enveloppant selon la revendication 1 ou la revendication 2, dans lequel les moyens de retenue comprennent un ou plusieurs rabats (F) reliés de manière articulée à une paroi latérale, le ou les rabats de retenue étant pliés vers l'intérieur dans l'espace entre des articles adjacents.

4. Carton enveloppant selon la revendication 3, dans lequel le ou les rabats de retenue (F1, F2, F3, F4, F3a, F4a, F5a, F6) sont positionnés pour coopération avec un bord supérieur de ladite bande entre les extrémités du carton de façon à limiter un déplacement vers le haut de la bande.

5. Carton enveloppant selon la revendication 4, com-

- portant en outre un deuxième rabat de retenue (F1a, F2a, F7a, F8a) relié de manière articulée au panneau de paroi latérale et espacé du premier rabat de retenue, lequel deuxième rabat de retenue est plié vers l'intérieur dans l'espace entre des articles adjacents afin de coopérer avec le bord inférieur de la bande de façon à limiter le déplacement vers le bas de la bande. 5
6. Carton enveloppant selon la revendication 3, dans lequel le ou les rabats de retenue (F1a, F2a, F7a, F8a) sont positionnés pour coopération avec un bord inférieur de ladite bande entre les extrémités du carton de façon à limiter le déplacement vers le bas de la bande. 10 15
7. Carton enveloppant selon l'une quelconque des revendications 1 à 3, comprenant en outre plusieurs rabats de retenue articulés sur les bords d'extrémité opposés des panneaux de paroi latérale pour coopération avec un bord supérieur et/ou un bord inférieur de la bande. 20
8. Flan destiné à former un carton enveloppant comportant un panneau de base (12, 18), un premier panneau latéral (16), un panneau supérieur (20), un deuxième panneau latéral (24) reliés ensemble en série pour pliage, caractérisé en ce que le flan comprend des moyens de retenue d'un seul tenant reliés de manière articulée aux bords d'extrémité opposés d'un ou plusieurs des panneaux de paroi latérale afin d'être pliés vers l'intérieur, les moyens de retenue d'un seul tenant coopèrent avec une bande (P) afin d'encercler des articles dans une condition de mise en place de façon à limiter tout déplacement substantiel de la bande vers le sommet ou la base du carton dans une condition de mise en place. 25 30 35
9. Flan selon la revendication 8, dans lequel les moyens de retenue comportent un rabat de retenue (F) relié de manière articulée à la paroi latérale adjacente, lequel rabat de retenue peut être plié vers l'intérieur afin d'être placé entre la paroi latérale adjacente et plusieurs articles logés dans la condition de mise en place. 40 45
10. Flan selon la revendication 9, dans lequel le rabat de retenue est positionné pour coopération avec un bord supérieur de la bande (P) encerclant la multiplicité d'articles dans le carton afin de limiter un déplacement vers le haut de la bande. 50
11. Emballage comportant : 55
- plusieurs articles (B) qui sont disposés en un groupe d'au moins une rangée, une bande (P) s'étendant autour d'une circon-
- férence dudit groupe afin de maintenir lesdits articles ensemble en une unité, ladite bande comprenant une paire de brins droits parallèles opposés s'étendant chacun depuis un article d'extrémité dans ladite rangée jusqu'à un article d'extrémité opposée dans ladite rangée, et un carton (C) d'une structure tubulaire comprenant un panneau de paroi supérieure (20), une paire de panneaux de paroi latérale (16, 24) et une paire de panneaux de base fixés (12, 124), ledit carton s'étendant autour dudit groupe de telle sorte que lesdits panneaux de paroi latérale sont disposés sur lesdits brins droits et le long de côtés opposés dudit groupe, au moins un desdits panneaux de paroi latérale comprenant des moyens de retenue destinés à limiter un déplacement vertical de ladite bande.
12. Emballage selon la revendication 11, dans lequel lesdits moyens de retenue comprennent un rabat (F) articulé sur un bord latéral dudit au moins un panneau de paroi latérale, et ledit rabat étant plié vers l'intérieur de ladite structure tubulaire dans un espace entre des articles adjacents (B) dans ladite rangée afin d'être disposé dans un emplacement verticalement adjacent à un brin adjacent desdits brins droits.
13. Emballage selon la revendication 12, dans lequel le bord latéral dudit au moins un panneau de paroi latérale s'étend transversalement audit brin droit adjacent.
14. Emballage selon l'une quelconque des revendications 11 à 13, dans lequel ledit rabat (F) est disposé immédiatement au-dessus dudit brin droit adjacent.
15. Emballage selon la revendication 11, dans lequel lesdits moyens de retenue comprennent une paire de rabats supérieurs et inférieurs (F3a, F4a, F5a, F6a ; F1a, F2a, F7a, F8a) articulés sur ledit bord latéral d'au moins un panneau de paroi latérale, lesdits rabats supérieurs et inférieurs étant pliés vers l'intérieur de ladite structure tubulaire afin d'être disposés immédiatement au-dessus et en dessous dudit brin droit adjacent, respectivement.

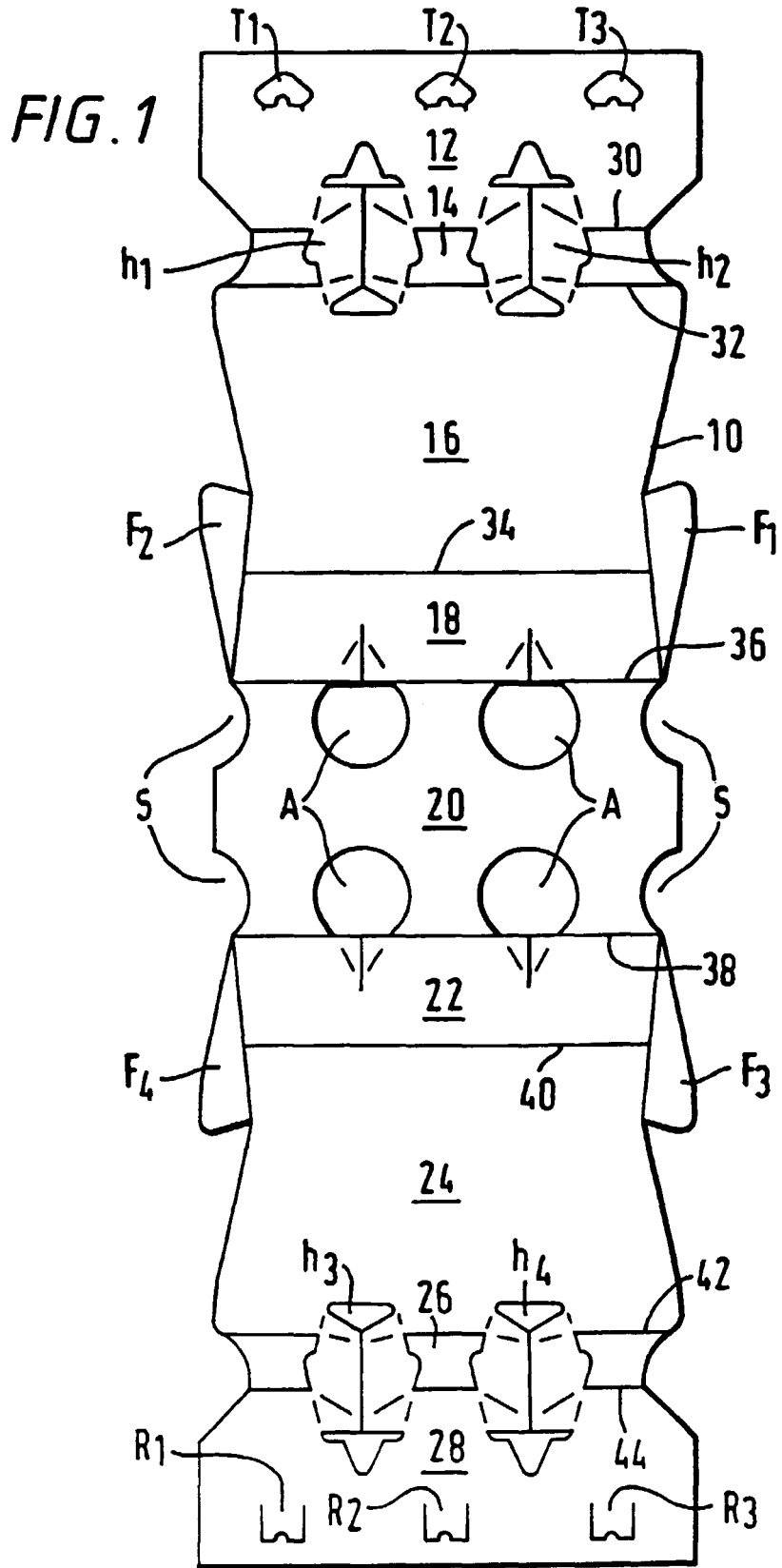


FIG. 2a

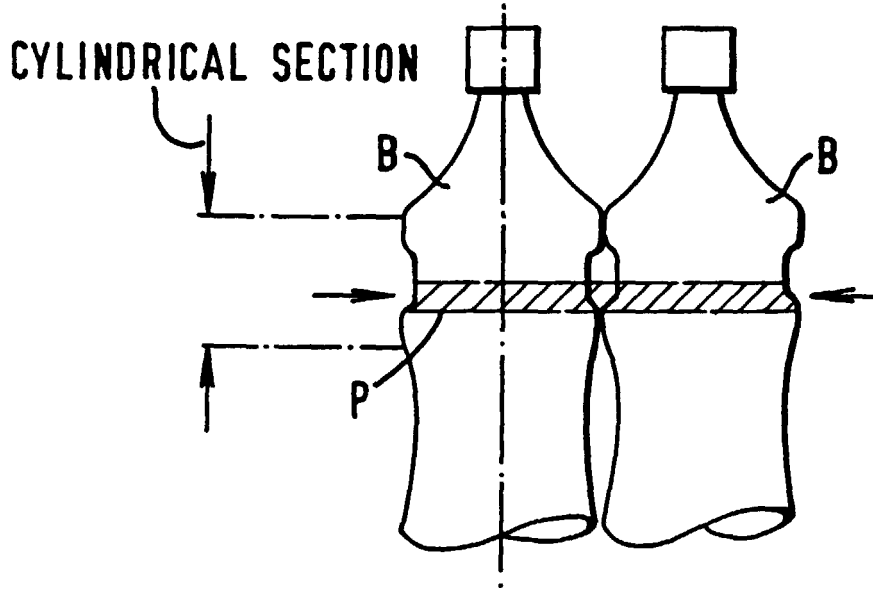


FIG. 2b

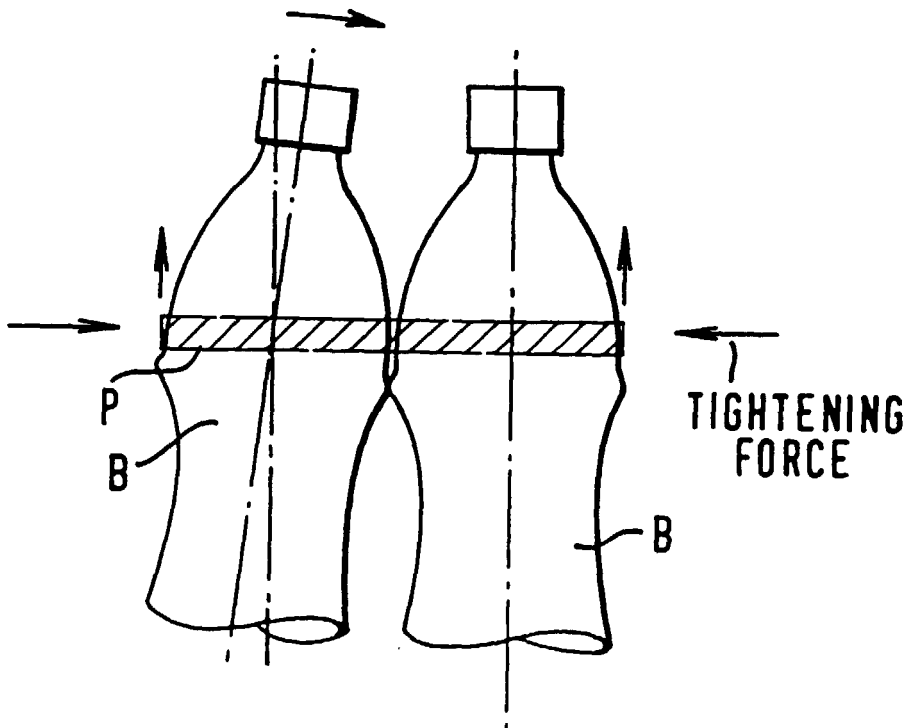


FIG. 3

